### COVINGTON

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### Gerard J. Waldron

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September 9, 2019

Ms. Marlene H. Dortch Secretary Federal Communications Commission 445 12th Street SW Washington, DC 20554

> Re: Ex parte presentation in GN Docket No. 16-142, Next Generation Broadcast Television Standard

Dear Ms. Dortch:

On September 5, 2019, Anne Schelle, executive director of Pearl TV ("Pearl"); Sandhi Kozsuch with Cox Media Group and chair of Pearl; Brett Jenkins with Nexstar Media Group and a Pearl board member; Ann Bobeck with FOX Corporation; and the undersigned met with Alex Sanjenis with Chairman Pai; Joel Miller with Commissioner O'Rielly; Martha Heller, Sarah Whitesell, Brendan Murray, and Evan Baranoff and Evan Morris (both by phone) with the Media Bureau and with Mark Columbo and Martin Doczkat with the Office of Engineering and Technology. On September 6, Mss. Schelle and Bobeck, Mr. Kozsuch and the undersigned met with Umair Javed and Jessica Martinez with Commissioner Rosenworcel and with Michael Scurato with Commissioner Starks.

During the meetings the parties discussed the attached slide deck and explained the substantial efforts underway in the Phoenix model market to explore the capabilities of the ATSC 3.0 standard and how this next-generation standard can be integrated with the many stakeholders in the television ecosystem including consumer electronics manufacturers, multichannel video programming distributors, and various technology vendors. The Pearl representatives explained Pearl's long-standing work with Cable Labs to assemble a database of information that broadcasters and cable companies alike can utilize to coordinate the rollout of ATSC 3.0 and its extensive work with cable companies in the Phoenix market on integrating this next-generation TV standard. We provided an update on the ATSC 3.0 hosting arrangements that have been implemented in Phoenix and how they maintained all the services (including the diginets) available to consumers in the market. The parties also discussed how single frequency networks will be important to ATSC 3.0 deployment in many markets since these distributed transmission systems are well suited to ATSC 3.0 and substantially enhance coverage in a market, especially in-building coverage. Pearl representatives also reviewed recent consumer research showing that consumers find most value in the combination of ATSC 3.0 features including enhanced video, immersive audio, and interactivity. Finally, the parties discussed the ambitious goal for 2020 to move beyond the Phoenix incubation test market and to launch in 61

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markets that will reach more than 78 million households. The parties emphasized that this transition is being coordinated by the broadcasters in each market and will entail participation by network-owned stations, public television stations, Pearl members, and all other broadcasters interested in embracing ATSC 3.0 technology.

Please direct any questions to the undersigned.

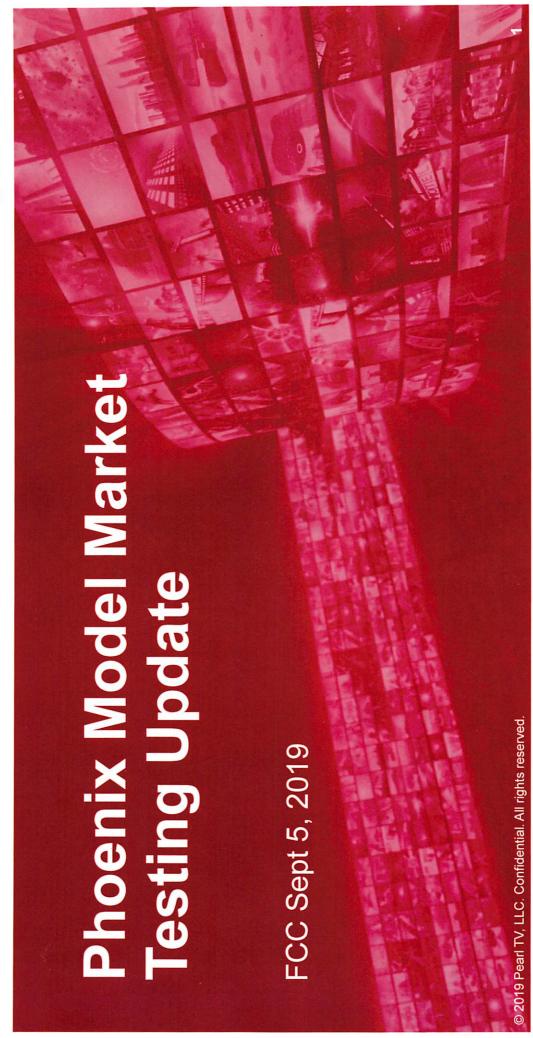
Respectfully submitted,

Gerard J. Waldron
Counsel for Pearl TV

Attachment

cc: Meeting attendees





### **Twelve Phoenix Stations Participating**



- W. Scripps Company's KNXV Channel 15 (ABC)
- Fox Television Stations' KSAZ Channel 10 (FOX) and KUTP Channel 26 (MyTV Network)
- Meredith Local Media Group's KPHO Channel 17 (CBS) and KTVK Channel 24 (Independent)
- Nexstar Media Group's KASW Channel 49 (CW Network)
- Telemundo Station Group's KTAZ Channel 39 (Telemundo)
- Tegna's KPNX Channel 12 (NBC)
- Univision's KFPH-CD Channel 35 (UniMas) and KTVW-DT Channel 33 (Univision)
- Arizona Television, KAZT Channel 7
- Arizona PBS KAET Channel 8





















### **Growing Partner Ecosystem**



### SONY







Top technology vendors

Significant investment













AVIS

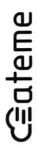




VERANCE









Open development test bed

Top TV manufacturers











Channel Master

**BitRouter** 



harmonic

ENINSYS FChnologies





### Phoenix Open Test Bed - Developing 3.0 Service For The Industry





- Transition models and integration
- TV receiver and transmission service profiles
- Operations manual
- Fixes / updates to the ATSC 3.0 standard
- Consumer research GTM
- Secure Signal Standard Implementation
- Broadcaster application framework
- AES development
- SFN development and model

### **Phoenix Test Timeline**

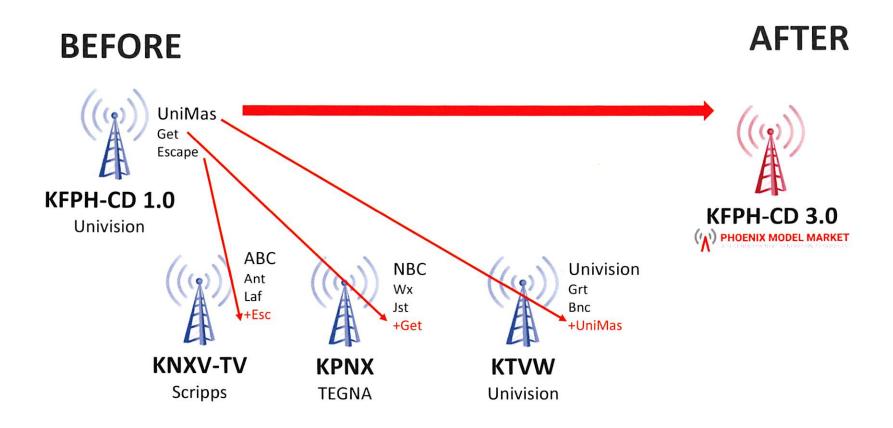


'Hello World' 4/18 to	Basic Service	Service Development
Late 2018	Late 2019	2020
Validate 3.0 transmission	Test equipment vendors	<ul> <li>Add/test additional consumer features</li> </ul>
<ul> <li>Test prototype receivers</li> </ul>	<ul> <li>Test application framework</li> </ul>	Operationalize transmission
Test signal protection	<ul> <li>MVPD integration</li> </ul>	
<ul> <li>Focus group testing</li> </ul>	<ul> <li>Test 1<sup>st</sup> pre-comercial TVs and devices</li> </ul>	<ul><li>SFN / Auto proof-of-concept</li><li>Add/test TVs and devices</li></ul>

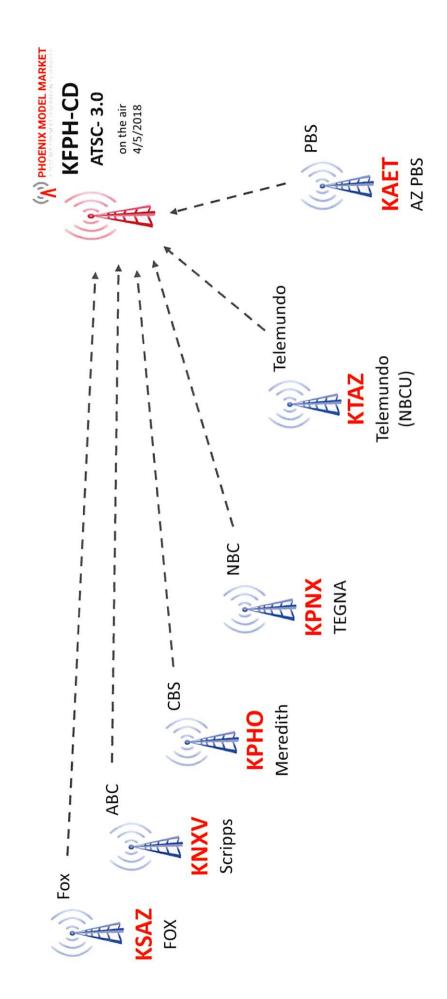


### Phoenix ATSC 3.0 Transition Status





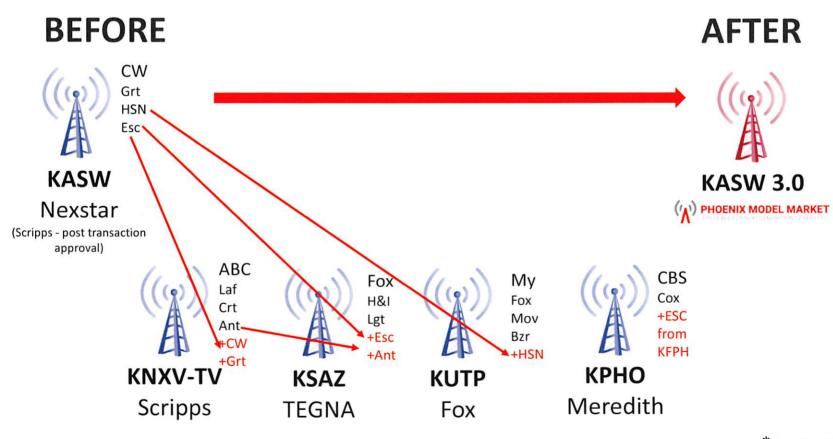
## First ATSC-3 Hosting Arrangement In 2018



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### **Second Phoenix Spectrum Clearing**

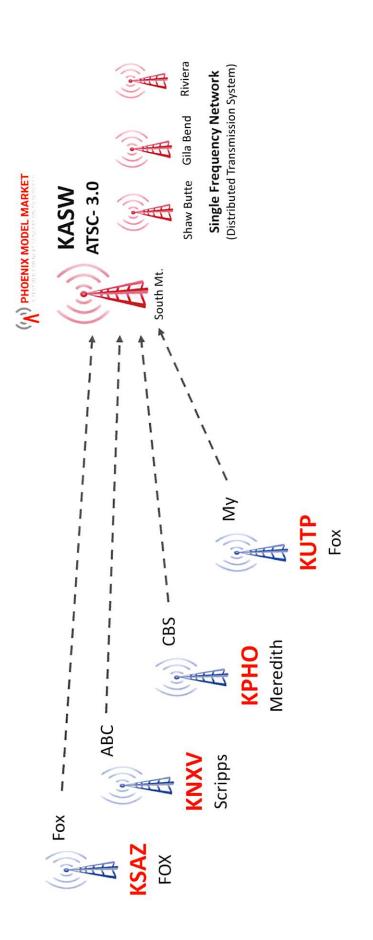


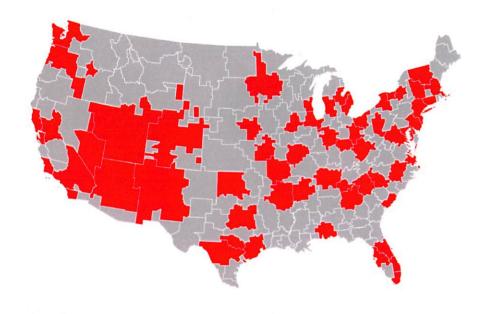


For reference Escape is carried on two stations in Phoenix

\*Tentative Plan

### Second ATSC-3 Hosting Arrangement







### **61 MARKETS**



### REACHING MORE THAN 78 MILLION HOUSEHOLDS



71.45% OF U.S. POPULATION

New York, NY Los Angeles, CA Chicago, IL Philadelphia, PA Dallas, TX Washington, DC Houston, TX San Francisco-Oakland-San Jose, CA Boston, MA Atlanta, GA Tampa-St. Petersburg-Sarasota, FL Phoenix, AZ Seattle-Tacoma, WA Detroit, MI Minneapolis, MN Miami-Ft. Lauderdale, FL

Denver, CO
Orlando-Daytona Beach-Melbourne, FL
Cleveland-Akron, OH
Sacramento-Stockton-Modesto, CA
St. Louis, MO
Portland, OR
Charlotte, NC
Pittsburgh, PA
Raleigh-Durham, NC
Baltimore, MD
Nashville, TN
Indianapolis, IN
San Diego, CA
Salt Lake City, UT
San Antonio, TX

Kansas City, KS-MO

Hartford-New Haven, CT
Columbus, OH
Cincinnati, OH
Milwaukee, WI
West Palm Beach-Ft. Pierce, FL
Greenville-Spartanburg, SC-Asheville, NC
Las Vegas, NV
Austin, TX
Norfolk-Portsmith-Newport News
Oklahoma City
Albuquerque-Santa Fe
Grand Rapids-Kalamazoo
Memphis
Buffalo
Providence-New Bedford

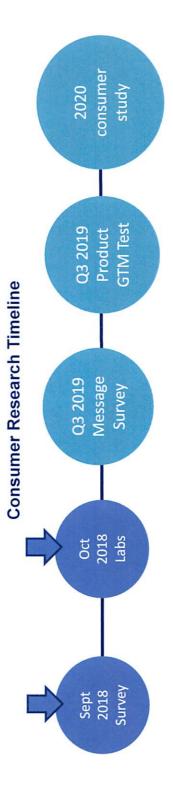
Little Rock-Pine Bluff

Mobile-Pensacola
Albany-Schenectady-Troy
Flint-Saginaw-Bay City
Omaha, NE
Charleston-Huntington
Springfield, MO
Rochester, NY
Syracuse, NY
Chattanooga, TN
Charleston, SC
Burlington-Plattsburg
Davenport-R. Island-Moline
Santa Barbara-Santa Marie-San Luis Obispo



- compelling Next-Gen TV features and services of For broadcasters, help identify the most interest to consumers.
- value proposition for buying a new TV set that is For CE partners, establish the initial consumer next-generation ready.





### **Consumer Research Summary**



- Next-Gen TV gets consumers more excited about broadcast programming and TV viewing in general
- Consumers find most value in the combination of features
  - The combination of Enhanced Video and Immersive 3D Audio has broad appeal
  - Modernized application and interactive features high appeal with Millennials and GenZs.
- Most consumers are willing to pay to access a range of their favorite features
  - There is strong interest in the ATSC 3.0 TV and add on accessories
  - Interest is spread out evenly across most of the devices
- Different elements of ATSC 3.0 are resonating with different consumer categories
  - This insight will impact marketing and distribution strategies



## Add/test consumer features

- Develop interactive features
- Customization by broadcaster
- Service operational development
- → Advanced content security
- → Refine service proposition
- Test brand and marketing

### Develop operational model

- → Broadcaster and CE ops
- → MVPD integration

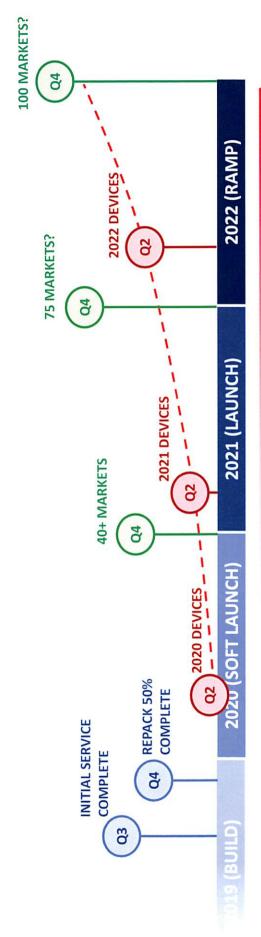
### Add/test TVs and devices

- →Add deferred TV features
- → Test additional devices & CEs
- --- Support retail discussions

## SFN / Auto proof-of-concept

- → Test SFN performance
- → Prove auto use cases

# 2020/1 Establishes The Foundational For Scaling Device And Service



IMPROVED OTA VIDEO & ALTERNATIVE AUDIO

CONTENT & SIGNAL PROTECTION

MVPD A/V INTEGRATION

DIRECT TO CONSUMER APPLICATION & EXTENDED CONTENT

MOBILITY OPPORTUNITY

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